

Morphology of flowering plants MCQ Question Answer

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Question: 1. The primary roots and its branches constitute the

- Option A. fibrous root system.
- Option B. tap root system.
- Option C. adventitious root system.
- Option D. all of the above

Question: 2. Roots develop from parts of the plant other than radicle are called

- Option A. tap roots
- Option B. fibrous roots
- Option C. adventitious roots
- Option D. nodular roots

Question: 3. Fibrous root system is found in

- Option A. monocotyledonous plants.
- Option B. dicotyledonous plants.
- Option C. bryophytes.
- Option D. gymnosperms.

Question: 4. Root hairs develop from

- Option A. region of maturation
- Option B. region of elongation
- Option C. region of meristematic activity
- Option D. root cap

Question: 5. The part of the root which is most active in water absorption is called

- Option A. root cap
- Option B. maturation zone
- Option C. meristematic zone
- Option D. zone of elongation

Question: 6. Fibrous roots develop in maize from

- Option A. upper nodes
- Option B. lower nodes
- Option C. upper internodes
- Option D. none of these

Question: 7. Pneumatophores are found in

- Option A. the vegetation which is found in marshy and saline lake.

- Option B. the vegetation which found in saline soil.
- Option C. xerophytic condition.
- Option D. hydrophytic condition.

Question: 8. Stilt roots occur in _____ .

- Option A. groundnut
- Option B. rice
- Option C. sugarcane
- Option D. wheat

Question: 9. Prop roots of banyan tree are meant for

- Option A. respiration.
- Option B. absorption of water from soil.
- Option C. providing support to big tree.
- Option D. all of the above.

Question: 10. The root differs from stem in having

- Option A. nodes and internodes
- Option B. axillary buds
- Option C. multicellular hairs
- Option D. unicellular hairs

Question: 11. Which of the following plants is growing in swampy areas, where many roots come out of the ground and grow vertically upwards?

- Option A. Potato
- Option B. Opuntia
- Option C. Rhizophora
- Option D. Grass

Question: 12. The region of the stem where leaves are born are called _____ while _____ are the portions between two _____.

- Option A. nodes, nodes and internodes
- Option B. nodes, internodes and nodes
- Option C. internodes, nodes and nodes
- Option D. internodes, internodes and nodes

Question: 13. Which of the following groups of plants have underground stems?

- Option A. Potato, ginger, turmeric, Euphorbia, zaminkand
- Option B. Potato, ginger, turmeric, zaminkand, Colocasia
- Option C. Potato, Citrus, Opuntia, zaminkand, Colocasia
- Option D. Potato, cucumber, watermelon, zaminkand, Colocasia

Question: 14. Stem tendrils are found in

- Option A. cucumber
- Option B. pumpkins
- Option C. grapevines
- Option D. all of these

Question: 15. In which of the following plants, a slender lateral branch arises from the base of the main axis and after growing aerially arch downwards to touch the ground?

- Option A. Mint and jasmine
- Option B. Banana and pineapple
- Option C. Grass and stawberry
- Option D. Pistia and Eichhornia

Question: 16. A branch in which each node bearing a rossette of leaves and a tuft of roots is found in aquatic plants like _____ and _____.

- Option A. Hydrilla and Pistia
- Option B. Eichhornia and Hydrilla
- Option C. Pistia and Eichhornia
- Option D. Pistia and Vallisneria

Question: 17. Which of the following is a modified stem for the protection of plants from browsing animals?

- Option A. Tendrils
- Option B. Thorns
- Option C. Rhizome
- Option D. Tuber

Question: 18. Which of the following is the green expanded part of leaf with vein and veinlets?

- Option A. Petiole
- Option B. Node
- Option C. Stipule
- Option D. Lamina

Question: 19. Leaves of dicotyledonous plants possess _____ venation, while _____ venation is the characteristic of most monocotyledons.

- Option A. reticulate and parallel
- Option B. parallel and reticulate
- Option C. reticulate and perpendicular
- Option D. obliquely and parallel

Question: 20. Which of the following is an example of pinnately compound leaf ?

- Option A. Cucumber
- Option B. Papaya
- Option C. Cucurbita

Option D. Neem

Question: 21. The main purpose of phyllotaxy for the leaves is to provide sufficient_____.

Option A. soil

Option B. air

Option C. water

Option D. light

Question: 22. Alternate type of phyllotaxy is found in

Option A. china rose

Option B. mustard

Option C. sunflower

Option D. all of these

Question: 23. Which type of function is performed by the fleshy leaves of onion and garlic?

Option A. Storage

Option B. Reproduction

Option C. Photosynthesis

Option D. Protection

Question: 24. The flower is the reproductive unit in the _____ meant for _____ reproduction.

Option A. angiosperms and sexual

Option B. gymnosperms and sexual

Option C. algae and asexual

Option D. pteridophytes and asexual

Question: 25. When a flower has both androecium and gynoecium, it is known as_____.

Option A. asexual

Option B. bisexual

Option C. unisexual

Option D. multisexual

Question: 26. When a flower can be divided into two equal radial halves in any radial plane passing through the centre, it is known as

Option A. actinomorphic

Option B. zygomorphic

Option C. asymmetric

Option D. bisymmetric

Question: 27. A sterile stamen is known as

Option A. staminode

- Option B. anther
- Option C. pollen grain
- Option D. filament

Question: 28. Which one of the following structure is not associated with gynoecium?

- Option A. Ovary
- Option B. Style
- Option C. Stigma
- Option D. Filament

Question: 29. During the post-fertilization period, the ovules develops into ___A___ and the ovary matures into a ___B ____.

- Option A. A - seeds; B - fruit
- Option B. A - fruit; B - seeds
- Option C. A - flower; B - seed
- Option D. A - seeds; B - flower

Question: 30. A scar on the seed coat through which the developing seeds attached to the fruit is called as _____.

- Option A. testa
- Option B. tegmen
- Option C. hilum
- Option D. micropyle

Answer Sheet

1	B	Tap root or primary roots develop from the radicle. It forms lateral branches or secondary roots which are further branched to form tertiary roots. This type of root system is seen in the mustard plant.
2	C	Root developing from any part of the plant other than the radicle is called adventitious roots. Adventitious roots are found in some plants like grass, Monstera and the banyan tree.
3	A	Fibrous root system is found in monocotyledonous plants. In monocotyledons, primary root is short lived and replaced by a large number of roots which originate from the base of the stem and constitute the fibrous root system.
4	A	Root consists of four regions: root cap, region of maturation, region of elongation and region of meristematic activity. Root hairs develop from the region of maturation. Region of maturation is the area of origin of lateral roots. Root hair region is called piliferous zone. This root hair absorbs water and minerals from the soil.
5	B	Water absorption takes place through root-hairs. The latter are present only in maturation zone.
6	B	In maize, Pandanus etc., adventitious roots develop from the lower nodes of the stem to

		provide mechanical support and are called stilt roots.
7	A	Pneumatophores or respiratory roots are erect, short root showing vertical and negatively geotropic (grow in an upward direction). It protrudes some distance above substratum and occurs in certain halophytes, which grow in saline marshes (mangroves).
8	C	In some plants, roots arise from lower nodes of stem and enter the soil and become stronger. Such roots are called shift roots. They protect the plant against winds, e.g., sugarcane, maize, screwpine.
9	C	Some plants are profusely branched and branches are thick and heavy. From these branches roots arise and hang downwards in the air and later penetrate the soil and function as prop (for support) to the branch, e.g., <i>Ficus bengalensis</i> (Banyan).
10	D	A root differs from stem, without any exception, by the presence of unicellular root hairs and in the absence of nodes and internodes.
11	C	Pneumatophores or respiratory roots are short vertical and negatively geotropic (grow in upward direction). Examples <i>Rhizophora</i> , <i>Heritiera</i> and <i>Avicennia</i> .
12	B	A node is formed at the place from where a leaf arises i.e., the place of origin of a leaf on the stem apex is differentiated as the node. The space between two successive nodes is called internode.
13	B	Underground stems are non green stems that may take part in perennation, store food or help in vegetative propagation. Underground stems of potato, ginger, turmeric, zaminkand, <i>Colocasia</i> are modified stem to store food in them.
14	D	Tendrils are spirally coiled, thread - like sensitive structures which develop from axillary buds and can coil around a support and help the plant in climbing. E.g., cucumber, pumpkins, water melon and grapevines.
15	A	In mint and jasmine, a slender lateral branch arises from the base of the main axis and after growing aerially for some time arch downwards to touch the ground.
16	C	A lateral branch with short internodes and each node bearing a rosette of leaves and a tuft of roots is found in aquatic plants like <i>Pistia</i> and <i>Eichhornia</i> .
17	B	Thorn is a stiff, sharp-pointed woody projection on the stem or other part of a plant. Thorns are found in many plants such as <i>Citrus</i> , <i>Bougainvillea</i> . They protect plants from grazing animals.
18	D	Lamina on the Leaf blade is usually flattened green photosynthetic part of leaf veins and veinlets. Its upper surface is called adaxial while lower surface is called abaxial. The shape margin, apex, surface and extent of incision of lamina varies in different leaves.
19	A	Leaves of dicotyledonous plants possess reticulate venation while parallel venation is the characteristics of most monocotyledonous. In reticulate venation, the main veins of leaf form numerous irregular branches and as a result a net like arrangements is formed. Reticulated venation is the most common vein formation in leaves. It can be found in the leaves of maple trees, oak trees and rose bushes. In parallel venation veins are arranged parallel to each other.

20	D	Pinnate are feather like leaves. The segmentation of the leafblade is towards the mid-rib, so that the leaflets are borne laterally by midrib or rachis. Example, Neem.
21	D	The arrangement of mature leaves on the stem or its branches is called phyllotaxy. These are meant for getting maximum amount of light for photosynthesis.
22	D	In alternate (or spiral) type of phyllotaxy, only one leaf is borne at each node and leaves are arranged alternatively giving a spiral form. Example chinarose, mustard & sunflower.
23	A	In onion and garlic, scale - leaves store food and water and are, therefore, thick and fleshy.
24	A	The flower is the reproductive unit in the angiosperms and is meant for the sexual reproduction. Flower is the seed-bearing part of a plant, consisting of reproductive organs (stamens and carpels) that are typically surrounded by a brightly coloured corolla (petals) and a green calyx (sepals).
25	B	When both the essential whorls are present in the same flower, it is described as bisexual, e.g., cruciferae, malvaceae etc.
26	A	On the basis of symmetry, flower may be actinomorphic (radial symmetry) or zygomorphic (bilateral symmetry). In actinomorphic symmetry, flower can be divided into two equal halves in any radial plane passing through the centre. Examples - mustard, Datura and chilli.
27	A	Staminode is a sterile or abortive stamen, frequently resembling a stamen without its anther.
28	D	Gynoecium or pistil is the female whorl that is differentiated into the ovary, style and stigma. Androecium is the male reproductive organ consisting of stamen. Each stamen is distinguishable into anther and filament joined by a connective.
29	A	During the post fertilization period, the ovules develop into seeds (A) and the ovary matures into a fruit (B). Seed is a fertilized and ripened ovule and the characteristics of gymnosperms and angiosperms. Fruit is the part of a seed-bearing plant that contains the fertilized seeds capable of generating a new plant. Fruit develops from the female part of the plant. Apples, peaches, tomatoes, etc. are fruits.
30	C	Hilum is the scar on a seed marking the point of attachment of the developing seed vessel to the fruit.